Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0604800F: Joint Strike Fighter EMD

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	1,743.569	2,072.897	883.773	0.000	883.773	1,028.424	649.759	233.991	47.213	Continuing	Continuing
653831: Joint Strike Fighter	1,743.569	2,072.897	883.773	0.000	883.773	1,028.424	649.759	233.991	47.213	0.000	0.000

A. Mission Description and Budget Item Justification

The Joint Strike Fighter (JSF) program will develop and deploy a family of highly common, affordable next generation, stealthy, multi-role strike fighter aircraft that meets the needs of the USN, USAF, USMC and allies with maximum commonality among the variants, consistent with National Disclosure Policy, to minimize life cycle costs. This is a joint program with no executive service. Navy and Air Force each provide approximately equal shares of annual funding to the program. The United Kingdom and seven other international countries, and three Foreign Military Sales cases are participants in the JSF program.

This program is funded under System Development and Demonstration (SDD) because it encompasses system development and demonstration of new end items prior to a production approval decision.

Quantity of 19 RDT&E articles reflects 13 flight test articles (including 1 asset in FY07, 1 in FY08, 1 in FY09, and 10 in FY10); 6 ground test articles are also budgeted in SDD which includes total program quantities for Navy and AF. Fiscal year phasing of aircraft reflects asset first flight.

Due to an inadvertent error the Air Force requests a technical adjustment transferring \$159,837,000 from R-1 Line No. 135, "F-35 Squadrons" to R-1 Line No. 81, "Joint Strike Fighter (JSF)". The following exhibits reflect the requested transfer amounts.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	PE 0604800F: Joint Strike Fighter EMD	

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	1,734.299	1,858.055	0.000	0.000	0.000
Current President's Budget	1,743.569	2,072.897	883.773	0.000	883.773
Total Adjustments	9.270	214.842	883.773	0.000	883.773
 Congressional General Reductions 		-0.158			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	0.000			
 Congressional Adds 		215.000			
 Congressional Directed Transfers 		0.000			
 Reprogrammings 	0.000	0.000			
 SBIR/STTR Transfer 	0.000	0.000			
Other Adjustments	9.270	0.000	883.773	0.000	883.773

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 653831: Joint Strike Fighter

Congressional Add: F136 Second engine

	425.390	429.108
Congressional Add Subtotals for Project: 653831	425.390	429.108
Congressional Add Totals for all Projects	425.390	429.108

FY 2009

FY 2010

Change Summary Explanation

The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.

Exhibit K ZA, RD IGE I Toject Gustinoution: 1 B 20117	11 1 0100						DAIL. I CO	nuary 2010	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM N	NOMENCLA	ΓURE		PROJECT				
3600: Research, Development, Test & Evaluation, Air Force		PE 0604800F: Joint Strike Fighter EMD				653831: Joint Strike Fighter			
BA 5: Development & Demonstration (SDD)									
	EV 2011	EV 2011	EV 2011						

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
653831: Joint Strike Fighter	1,743.569	2,072.897	883.773	0.000	883.773	1,028.424	649.759	233.991	47.213	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

This exhibit reflects an Air Force request for a technical adjustment transferring \$159,837,000 from R-1 Line 135 "F-35 Squadrons" to Line No. 81 "Joint Strike Fighter (JSF)"

A. Mission Description and Budget Item Justification

Exhibit R-24 RDT&F Project Justification: PR 2011 Air Force

The Joint Strike Fighter (JSF) program will develop and deploy a family of highly common, affordable next generation, stealthy, multi-role strike fighter aircraft that meets the needs of the USN, USAF, USMC and allies with maximum commonality among the variants, consistent with National Disclosure Policy, to minimize life cycle costs. This is a joint program with no executive service. Navy and Air Force each provide approximately equal shares of annual funding to the program. The United Kingdom and seven other international countries, and three Foreign Military Sales cases are participants in the JSF program.

This program is funded under System Development and Demonstration (SDD) because it encompasses system development and demonstration of new end items prior to a production approval decision.

Quantity of 19 RDT&E articles reflects 13 flight test articles (including 1 asset in FY07, 1 in FY08, 1 in FY09, and 10 in FY10); 6 ground test articles are also budgeted in SDD which includes total program quantities for Navy and AF. Fiscal year phasing of aircraft reflects asset first flight.

Due to an inadvertent error the Air Force requests a technical adjustment transferring \$159,837,000 from R-1 Line No. 135, "F-35 Squadrons" to R-1 Line No. 81, "Joint Strike Fighter (JSF)". The following exhibits reflect the requested transfer amounts.

B. Accomplishments/Planned Program (\$ in Millions)

FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
2,452.707	2,445.453	1,465.181	0.000	1,465.181

DATE: February 2010

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force **DATE:** February 2010 **PROJECT** APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE 3600: Research, Development, Test & Evaluation, Air Force PE 0604800F: Joint Strike Fighter EMD 653831: Joint Strike Fighter BA 5: Development & Demonstration (SDD) B. Accomplishments/Planned Program (\$ in Millions) FY 2011 FY 2011 FY 2011 **FY 2009 FY 2010** Base OCO Total MAJOR THRUST: SDD execution of the Air System (Lockheed Martin) including International Commonality Effort: includes airframe, vehicle and mission systems, autonomic logistics, systems engineering... FY 2009 Accomplishments: In FY2009: Continued System Development and Demonstration SDD execution of the Air System, with Lockheed Martin including International Commonality Effort (ICE) which includes airframe, vehicle systems, mission systems, autonomic logistics, systems engineering and integrated test efforts. FY 2010 Plans: In FY2010: Continue System Development and Demonstration SDD execution of the Air System, with Lockheed Martin including International Commonality Effort (ICE) which includes airframe, vehicle systems, mission systems, autonomic logistics, systems engineering and integrated test efforts. FY 2011 Base Plans: In FY2011: Continue System Development and Demonstration SDD execution of the Air System, with Lockheed Martin including International Commonality Effort (ICE) which includes airframe, vehicle systems, mission systems, autonomic logistics, systems engineering and integrated test efforts. FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable. MAJOR THRUST: SDD execution of the F135 Propulsion System (Pratt & Whitney) using International 507.209 636.978 0.000 211.828 211.828 Commonality Effort; includes testing, autonomic logistics, integration & performing technology matur... FY 2009 Accomplishments: In FY2009: Continued SDD execution of the F135 Propulsion System, with Pratt & Whitney using (ICE) which includes engine testing, autonomic logistics, integration and performing technology maturation efforts.

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: Development & Demonstration (SDD)

PROJECT

653831: Joint Strike Fighter

653831: Joint Strike Fighter

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY2010: Continue SDD execution of the F135 Propulsion System, with Pratt & Whitney using (ICE) which includes engine testing, autonomic logistics, integration and performing technology maturation efforts.					
FY 2011 Base Plans: In FY2011: Continue SDD execution of the F135 Propulsion System, with Pratt & Whitney using (ICE) which includes engine testing, autonomic logistics, integration and performing technology maturation efforts.					
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.					
MAJOR THRUST: SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support.	39.531	42.537	49.752	0.000	49.75
FY 2009 Accomplishments: In FY2009: Continued SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support.					
FY 2010 Plans: In FY2010: Continue SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support.					
FY 2011 Base Plans: In FY2011: Continue SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force **DATE:** February 2010 **PROJECT** APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE 3600: Research, Development, Test & Evaluation, Air Force PE 0604800F: Joint Strike Fighter EMD 653831: Joint Strike Fighter BA 5: Development & Demonstration (SDD) B. Accomplishments/Planned Program (\$ in Millions) FY 2011 FY 2011 FY 2011 **FY 2009 FY 2010** Base OCO Total FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable. Major Thrust: Continue SDD Support efforts for airframe, air vehicle systems, mission systems, weapons 100.211 164.758 207.393 0.000 207.393 integration, mission support, and autonomic logistics development activities. FY 2009 Accomplishments: In FY2009: Continued SDD Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. FY 2010 Plans: In FY2010: Continue SDD Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. FY 2011 Base Plans: In FY2011: Continue SDD Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable. MAJOR THRUST: Government Development Test & Evaluation (DT&E) continued to support test aircraft 404.102 101.538 311.925 404.102 0.000 first flight. DT&E includes flight test preparation, weapons integration testing, & Program Introdu... FY 2009 Accomplishments: In FY2009: Government Development Test and Evaluation (DT&E) continud in support of first flight of test aircraft. Elements of DT&E include preparation for flight testing, weapons integration testing, and Program Introduction Documents (PIDs).

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force	DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force	R-1 ITEM NOMENCLATURE PE 0604800F: Joint Strike Fighter EMD	PROJECT 653831: <i>Joi</i>	int Strike Fighter
BA 5: Development & Demonstration (SDD)			

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY2010: Government Development Test and Evaluation (DT&E) continues in support of first flight of test aircraft. Elements of DT&E include preparation for flight testing, weapons integration testing, and Program Introduction Documents (PIDs).					
FY 2011 Base Plans: In FY2011: Government Development Test and Evaluation (DT&E) continues in support of first flight of test aircraft. Elements of DT&E include preparation for flight testing, weapons integration testing, and Program Introduction Documents (PIDs).					
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.					
MAJOR THRUST: Management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.	37.343	70.064	74.519	0.000	74.51
FY 2009 Accomplishments: In FY2009: Continued management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.					
FY 2010 Plans: In FY2010: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.					
FY 2011 Base Plans: In FY2011: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604800F: Joint Strike Fighter E	MD	PROJECT 653831: <i>Jo</i>	PROJECT 653831: Joint Strike Fighter		
B. Accomplishments/Planned Program (\$ in Millions)			I			
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Follow-on Development Block IV capabilities to incl sensors, survivability, and upgrades required to support F-35 variants (0.000	0.000	58.052	0.000	58.052
FY 2009 Accomplishments: In FY2009: Not Applicable						
FY 2010 Plans: In FY2010: Not Applicable						
FY 2011 Base Plans: In FY2011: Initiate Follow on Development Block IV capabilities to security, sensors, survivability, and upgrades required to support F						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
Accompli	shments/Planned Programs Subtotals	3,238.539	3,671.715	2,470.827	0.000	2,470.827
		FY 2009	FY 2010]		
		425.390	429.108			
Congressional Add: F136 Second engine						
FY 2009 Accomplishments: In FY2009: Continued the Fighter Engineering Team (General Eledevelopment for a second, interchangeable, JSF engine for competent of the competence of the control of the competence of t	etition in production (previously					

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Exhibit R-2A, **RDT&E Project Justification:** PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT 653831: Joint Strike Fighter

BA 5: Development & Demonstration (SDD)

PE 0604800F: Joint Strike Fighter EMD

Congressional Adds Subtotals

425.390

429.108

B. Accomplishments/Planned Program (\$ in Millions)

3600: Research, Development, Test & Evaluation, Air Force

	FY 2009	FY 2010
maturation, engine testing, autonomic logistics and integration. Congressional Add actions restored \$480M in FY08 and \$430M in FY09.		
FY 2010 Plans: In FY2010: Continue the Fighter Engineering Team (General Electric/Rolls Royce) F136 development for a second, interchangeable, JSF engine for competition in production (previously begun in associated program elements 0603800N and 0603800F). Efforts included technology maturation, engine testing, autonomic logistics and integration. Congressional Add actions restored \$480M in FY08 and \$430M in FY09.		

C. Other Program Funding Summary (\$ in Millions)

		-	FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• PE 0604800F: <i>USN RDT&E</i>	1,675.776	1,918.416	667.915	0.000	667.915	594.004	529.826	375.897	134.676	0.000	0.000
• PE 0604800M: <i>USMC RDT&E</i>	0.000	0.000	667.916	0.000	667.916	594.004	529.826	375.925	134.707	0.000	0.000
• PE 0604800N: USN RDT&E - USRL	28.816	31.813	39.876	0.000	39.876	27.028	19.792	0.000	0.000	0.000	0.000
PE not applicable: Int'l Partner RDT&E	244.584	109.511	91.386	0.000	91.386	19.400	11.620	0.000	0.000	0.000	0.000
• PE 0207142F: USAF PROCUREMENT	1,660.628	2,355.345	3,983.242	204.900	4,188.142	4,229.333	4,212.451	6,145.339	6,973.9831	36,362.822	0.000
• PE 0204146N: USN Procurement	1,692.965	4,464.251	1,886.988	0.000	1,886.988	2,012.008	2,636.771	2,467.155	2,764.547	27,964.270	0.000
• PE 0204146M: USMC Procurement	0.000	0.000	2,576.142	0.000	2,576.142	2,863.025	4,016.672	3,447.547	3,451.525	22,070.323	0.000
PE not applicable (1): Int'l Partner Procurement	874.014	629.965	1,936.600	0.000	1,936.600	4,690.200	5,737.700	7,893.900	7,898.740	0.000	0.000
	2.957	3.017	5.398	0.000	5.398	5.728	4.901	4.981	5.713	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0604800F: Joint Strike Fighter EMD 653831: Joint Strike Fighter

BA 5: Development & Demonstration (SDD)

C. Other Program Funding Summary (\$ in Millions)

EV 2044 EV 2044													
			FY 2011	FY 2011	FY 2011					Cost To			
<u>Line Item</u>	FY 2009	FY 2010	Base	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost		
• PE 426500: USN Other													
Procurement													
• PE 0207142F (2): USAF Initial	61.096	129.296	263.573	0.000	263.573	260.659	293.707	413.225	444.519	10,876.348	0.000		
Spares and Repair Parts													
• PE 0204146N (3): USN Initial	182.508	248.191	107.030	0.000	107.030	92.216	178.496	194.183	192.599	2,049.006	0.000		
Spares and Repair Parts													
• PE 0204146M (4): USMC Initial	0.000	0.000	164.135	0.000	164.135	136.957	311.553	325.794	324.437	1,718.297	0.000		
Spares and Repair Parts													
• PE 0207142F (5): <i>USAF</i>	21.973	73.360	139.640	0.000	139.640	73.783	82.313	0.000	27.619	0.000	0.000		
MILCON													
• PE 0212576N: <i>USN MILCON</i>	0.000	3.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
• PE 0207142F (6): <i>USAF</i>	0.000	0.000	123.936	0.000	123.936	8.319	5.047	3.461	31.472	0.000	0.000		
Modifications													
• PE 0207142F (7): USAF RDT&E	0.000	0.000	57.724	0.000	57.724	372.215	469.563	515.628	230.617	0.000	0.000		

D. Acquisition Strategy

Activities in the prior phase of JSF centered around three distinct objectives to provide a sound foundation for the start of System Development & Demonstration (SDD) in Fall 2001:

- (1) facilitated the Services' development of fully validated, affordable operational requirements;
- (2) lowered risk by investing in and demonstrating key leveraging technologies that lowered the cost of development, production and ownership; and
- (3) demonstrated operational concepts.

Early warfighter and technologist interaction was an essential aspect of the requirements definition process and achieved JSF affordability goals. To an unprecedented degree, the JSF Program used cost-performance trades early, as an integral part of the weapon system development process. The Services defined requirements through an iterative process, balancing weapon system capability against life cycle cost (LCC) at every stage. Each iteration of the requirements was provided to industry. They evolved their designs and provided cost data back to the warfighters. The warfighters evaluated trades and made decisions for the next iteration. This iterative process produced iterations of the Services' Joint Interim Requirements Documents in 1995, 1997, 1998 and culminated in the approved joint Operational Requirements Document (ORD) in FY2000.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0604800F: Joint Strike Fighter EMD 653831: Joint Strike Fighter

BA 5: Development & Demonstration (SDD)

These follow-on development efforts will be procured via cost type contracts. It is anticipated that the fee provisions will be used to target and motivate contractor performance. A sizable technology maturation effort was conducted to reduce risk and LCC through technology maturation and demonstrations. The primary emphasis was on technologies identified as high-payoff contributors to affordability, supportability, survivability and lethality. Numerous demonstrations were accomplished to validate performance and LCC impact to component, subsystem and the total system.

In November 1996, contracts were awarded to Boeing and Lockheed Martin for Concept Demonstration Programs. These competing contractors built and flew concept demonstrator aircraft, conducted concept unique ground demonstrations, and refined their respective weapon system concepts. Specifically, Boeing and Lockheed Martin demonstrated commonality and modularity, Short Take Off Vertical Landing (STOVL) hover and transition, and low speed handling qualities of their respective weapon system concepts. Pratt and Whitney provided propulsion hardware and engineering support. General Electric continued development of a second, interchangeable, engine for competion in production.

Following evaluation of proposals and a favorable Milestone B decision, the JSF Program entered SDD on 26 October 2001 with SDD contract awards to Lockheed Martin and Pratt & Whitney. The SDD plan reflects a block approach, based on open systems architecture, for accomplishing aircraft and weapons integration. General Electric continues propulsion development efforts through FY08 when program funding ends.

Follow-on Development will continue the evolutionary approach of SDD by providing capability enhancements though an incremental methodology. The Joint Capabilities Integration and Development System (JCIDS) and Defense Acquisition System (DAS) shall provide the framework and basis for defining, managing and acquiring the envisioned F-35 enhancements. The plan for each follow-on increment will include all the development, integration and verification testing of those capabilities. Additionally, the non-recurring efforts for cut-in of retrofit, production and sustainment will be included. Retrofit planning will be based on upgrading all previously fielded aircraft to the latest increment in order to limit the number of configurations, thus reducing life cycle cost. Retrofit execution will be in accordance with the stakeholders direction.

The new configurations will be incorporated into production and, if required by the U.S. Services or SDD International Partners, retrofitted to fielded aircraft under F-35 production and sustainment contracts. Similar to SDD, BOAs and ID/IQ contracts may be used for trade studies and analyses to supplement Follow-On requirements development.

The updated JSF Acquisition Strategy and program schedule were approved following the May 05 DAB. APR 06 DAB authorized full funding for LRIP I procurement. USAF LRIP I Advanced Procurement funding was awarded during FY06, followed by the USAF Regular Procurement award in FY07. USAF and DoN Advanced Procurement funding for LRIP II was awarded during FY07. USAF LRIP II full-funding contract award occurred in April 08. DoN LRIP II full funding contract was awarded July 08, upon successful first flight of the DoN STOVL aircraft. USAF and DoN Advance Procurement funding for LRIP III was awarded in May 08; LRIP III full funding was awarded in June 09. LRIP IV advanced procurement was awarded in March 09, and full funding contract award will occur in February 10.

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0604800F: Joint Strike Fighter EMD	653831: Joint Strike Fighter
BA 5: Development & Demonstration (SDD)		
Budget reflects a one-year flight test extension approved by the Exec	utive Steering Committee.	
E. Performance Metrics		
Please refer to the Performance Base Budget Overview Book for info	rmation on how Air Force resources are applied	and how those resources are contributing to Air
Force performance goals and most importantly, how they contribute to		3

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)

PE 0604800F: Joint Strike Fighter EMD

653831: Joint Strike Fighter

Product Development (\$ in Millions)

-	•	•	_										
				FY 2	2010	FY 2 Ba		FY 2 OC		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Lockheed Martin - SDD	C/CPAF	Lockheed Martin Ft. Worth, TX	23,060.300	2,431.167	Oct 2009	1,462.504	Oct 2010	0.000		1,462.504	2,907.330	29,861.302	27,481.288
Lockheed Martin - IDIQ D0022	SS/Various	Lockheed Martin Ft. Worth, TX	5.015	7.286	Oct 2009	2.677	Oct 2010	0.000		2.677	2.350	17.328	0.000
Lockheed Martin - IDIQ D0009	SS/Various	Lockheed Martin Ft. Worth, TX	19.733	7.000	Oct 2009	0.000		0.000		0.000	0.000	26.733	0.000
Lockheed Martin - BOA	SS/Various	Lockheed Martin Ft. Worth, TX	3.511	0.000		0.000		0.000		0.000	0.000	3.511	0.000
Pratt & Whitney - SDD	SS/CPAF	Pratt &Whtintey Hartfored, CT	6,065.573	636.978	Oct 2009	211.828	Oct 2010	0.000		211.828	373.286	7,287.665	6,660.675
Pratt & Whitney - Close Out Contract C0132	SS/CPFF	Pratt &Whtintey Hartfored, CT	1.364	0.000		0.000		0.000		0.000	0.000	1.364	0.000
Pratt & Whitney - CDP Close Out Contract C0050	SS/CPFF	Pratt &Whtintey Hartfored, CT	2.211	0.000		0.000		0.000		0.000	0.000	2.211	0.000
Pratt & Whitney - BOA	SS/Various	Pratt &Whtintey Hartfored, CT	35.983	0.000		0.000		0.000		0.000	0.000	35.983	0.000
Pratt & Whitney - IDIQ	SS/Various	Pratt &Whtintey Hartfored, CT	10.862	0.000		0.000		0.000		0.000	0.000	10.862	0.000
General Electric - SDD	SS/CPAF	FET General Electric/ Rolls Royce: Cincinnati, OH	1,670.367	429.108	Oct 2009	0.000		0.000		0.000	0.000	2,099.475	1,716.386
General Electric - IDIQ D0009	SS/Various	FET	0.264	0.000		0.000		0.000		0.000	0.000	0.264	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)

PE 0604800F: Joint Strike Fighter EMD

653831: Joint Strike Fighter

Product Development (\$ in Millions)

				FY 2	:010	FY 2 Ba		FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		General Electric/ Rolls Royce: Cincinnati, OH											
General Electric - IDIQ D0074	SS/Various	FET General Electric/ Rolls Royce: Cincinnati, OH	4.175	0.000		0.000		0.000		0.000	0.000	4.175	0.000
General Electric - F-136 Transition	SS/Various	FET General Electric/ Rolls Royce: Cincinnati, OH	100.400	0.000		0.000		0.000		0.000	0.000	100.400	0.000
General Electric - BOA	SS/Various	FET General Electric/ Rolls Royce: Cincinnati, OH	5.548	0.000		0.000		0.000		0.000	0.000	5.548	0.000
General Electric - Phase IIIb	SS/Various	FET General Electric/ Rolls Royce: Cincinnati, OH	382.753	0.000		0.000		0.000		0.000	0.000	382.753	0.000
Systems Engineering	Various/ Various	Various Various	240.041	42.537	Oct 2009	49.752	Oct 2010	0.000		49.752	237.634	569.965	0.000
Lockheed Martin - Follow-on Development	SS/CPAF	Lockheed Martin Ft. Worth, TX	0.000	0.000		52.073	Oct 2010	0.000		52.073	292.333	344.406	0.000
Pratt & Whitney - Follow- on Development	SS/CPAF	Pratt &Whtintey Hartfored, CT	0.000	0.000		4.250	Oct 2010	0.000		4.250	9.000	13.250	0.000
Systems Engineering - Follow-on Development	Various/ Various	Various Various	0.000	0.000		0.067	Oct 2010	0.000		0.067	1.864	1.931	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0604800F: Joint Strike Fighter EMD

653831: Joint Strike Fighter

BA 5: Development & Demonstration (SDD)

Product Development (\$ in Millions)

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				FY 20	010	FY 2 Ba		FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	31,608.100	3,554.076		1,783.151		0.000		1,783.151	3,823.797	40,769.126	

Remarks

Support (\$ in Millions)

				FY 2	2010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AFFTC/Eglin	Various/ Various	Various Various	71.143	18.081	Oct 2009	20.999	Oct 2010	0.000		20.999	72.004	182.227	0.000
ASC/AFRL	Various/ Various	ASC/AFRL Wright Patterson AFB, OH	35.388	9.463	Oct 2009	6.096	Oct 2010	0.000		6.096	31.376	82.324	0.000
Bolling AFB	Various/ Various	Bolling AFB Washington DC	6.400	1.170	Oct 2009	1.142	Oct 2010	0.000		1.142	2.198	10.909	0.000
DMEA	Various/ Various	DMEAWright Patterson AFB Dayton, OH	4.112	0.000	Oct 2009	0.000		0.000		0.000	0.000	4.112	0.000
ESC	Various/ Various	ESC Hanscom AFB, MA	6.383	0.836	Oct 2009	0.455	Oct 2010	0.000		0.455	1.376	9.050	0.000
AEDC/Fuel	Various/ Various	Various Various	107.092	62.447	Oct 2009	72.364	Oct 2010	0.000		72.364	179.013	420.916	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)

PE 0604800F: Joint Strike Fighter EMD

653831: Joint Strike Fighter

Support (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NAS Jacksonville	Various/ Various	NAS Jacksonville, FL	4.832	2.009	Oct 2009	2.143	Oct 2010	0.000		2.143	9.559	18.543	0.000
Miscellaneous	Various/ Various	Various Various	191.088	10.572	Oct 2009	16.068	Oct 2010	0.000		16.068	41.721	259.449	0.000
NAWC China Lake	Various/ Various	Various Various	71.847	14.297	Oct 2009	11.751	Oct 2010	0.000		11.751	41.895	139.790	0.000
NAWC TSD	Various/ Various	Various Various	6.096	1.854	Oct 2009	2.038	Oct 2010	0.000		2.038	7.990	17.978	0.000
NAWC Patuxent River	Various/ Various	NAWC AD Patuxent River, VA	233.248	42.612	Oct 2009	73.381	Oct 2010	0.000		73.381	188.114	537.356	0.000
NSWC	Various/ Various	Various Various	2.880	1.318	Oct 2009	0.909	Oct 2010	0.000		0.909	2.265	7.373	0.000
SPAWAR	Various/ Various	Various Various	6.484	0.099	Oct 2009	0.045	Oct 2010	0.000		0.045	0.249	6.878	0.000
SBIR Technology Insertion Congressional Add	Various/ Various	Various Various	24.187	0.000		0.000		0.000		0.000	0.000	24.187	0.000
Follow-on Development	Various/ Various	Various Various	0.000	0.000		1.662	Oct 2010	0.000		1.662	40.215	41.877	0.000
·		Subtotal	771.180	164.758		209.053		0.000		209.053	617.975	1,762.969	0.000

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)

PE 0604800F: Joint Strike Fighter EMD

653831: Joint Strike Fighter

Test and Evaluation (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NAWC Patuxent	Various/ Various	NAWC AD Patuxent River, VA	158.437	136.921	Oct 2009	174.158	Oct 2010	0.000		174.158	851.343	1,320.858	0.000
NAWC China Lake	Various/ Various	NAWC WD China Lake, CA	39.441	13.218	Oct 2009	15.266		0.000		15.266	39.148	107.072	0.000
Edwards AFB	Various/ Various	Edwards AFB California	147.537	97.290	Oct 2009	129.550	Oct 2010	0.000		129.550	291.103	665.481	0.000
Other (including Classified PIDs)	Various/ Various	Various Various	49.391	28.151	Oct 2009	29.127	Oct 2010	0.000		29.127	69.577	176.246	0.000
WEPS/Eglin	Various/ Various	WEPS Eglin AFB, FL	60.274	16.119	Oct 2009	21.103	Oct 2010	0.000		21.103	9.614	107.111	0.000
JITC	Various/ Various	Various Various	0.503	0.000		0.000		0.000		0.000	0.000	0.503	0.000
OT - UK	Various/ Various	Various Various	3.270	6.910	Oct 2009	11.185	Oct 2010	0.000		11.185	34.931	56.296	0.000
OT - AFOTEC/AFFTC	Various/ Various	Various Various	18.124	10.956	Oct 2009	20.179	Oct 2010	0.000		20.179	405.214	454.473	0.000
OT - JITC/OPTEV	Various/ Various	Various Various	3.485	2.361	Oct 2009	3.535	Oct 2010	0.000		3.535	33.396	42.776	0.000
		Subtotal	480.462	311.926		404.103		0.000		404.103	1,734.326	2,930.816	0.000

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE PROJECT

PE 0604800F: Joint Strike Fighter EMD 653831: Joint Strike Fighter

Management Services (\$ in Millions)

				FY 2	2010	FY 2 Ba	-	FY 2		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ACT I	SS/CPFF	ACT I Arlington, VA	0.000	2.750	Nov 2009	2.833	Nov 2009	0.000		2.833	12.206	17.789	0.000
Mantech	C/FP	Mantech Arlington, VA	31.399	6.681	Nov 2009	7.015	Nov 2010	0.000		7.015	31.749	76.845	0.000
PA Consulting	SS/CPFF	PA Consultants Arlington, VA	0.000	2.021	Nov 2009	2.082	Nov 2009	0.000		2.082	8.970	13.073	0.000
DRC	C/CPFF	DRC Arlington, VA	0.000	2.333	Nov 2009	3.000	Nov 2010	0.000		3.000	3.000	8.333	0.000
First Principles	C/CPFF	First Principles Arlington, VA	0.000	0.881	Nov 2009	0.909	Nov 2010	0.000		0.909	3.951	5.741	0.000
Wyle	C/CPFF	Wyle Arlington, VA	49.032	18.066	Nov 2009	18.970	Nov 2010	0.000		18.970	85.602	171.670	0.000
SAFTAS	C/CPAF	SAFTAS Arlington, VA	46.562	15.504	Nov 2009	16.174	Nov 2010	0.000		16.174	67.581	145.821	0.000
Stanley	C/CPAF	Stanley Arlington, VA	110.805	17.810	Nov 2009	19.500	Nov 2010	0.000		19.500	88.060	236.175	0.000
Congressional Studies	Various/ Various	Various Various	0.800	0.000		0.000		0.000		0.000	0.000	0.800	0.000
Program Management Support	Various/ Various	Various Various	22.917	4.017	Oct 2009	4.037	Oct 2010	0.000		4.037	16.331	47.302	0.000
	·	Subtotal	261.515	70.063		74.520		0.000		74.520	317.450	723.549	0.000

Remarks

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604800F: Joint Strike Fighter EMD

PROJECT

653831: Joint Strike Fighter

	Total Prior Years Cost	FY 2010		2011 ise	FY 2	-	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	33,121.257	4,100.823	2,470.827		0.000		2,470.827	6,493.548	46,186.460	

Remarks

Total Prior Years Cost may include only FY 2009 data.

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

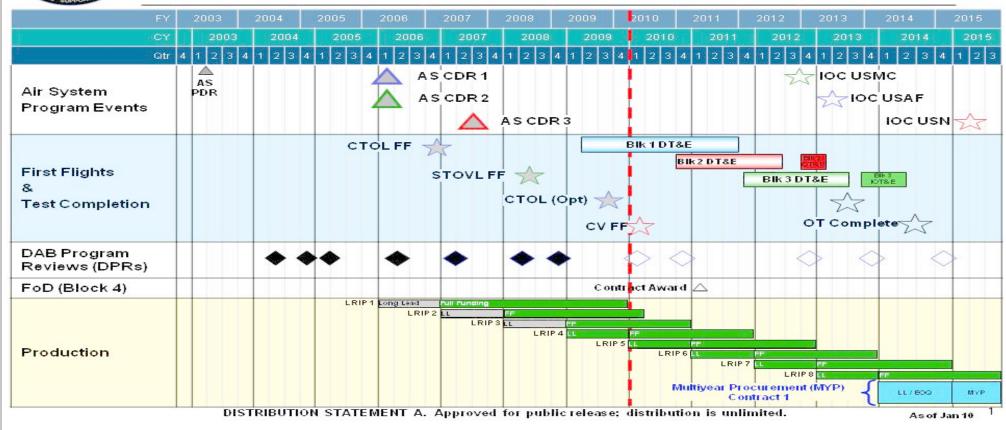
PE 0604800F: Joint Strike Fighter EMD

PROJECT

653831: Joint Strike Fighter



JSF Top-Level Development Program Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604800F: Joint Strike Fighter EMD

PROJECT

653831: Joint Strike Fighter

Schedule Details

	St	art	E	nd
Event	Quarter	Year	Quarter	Year
DAB Program Review (DPR)	1	2009	1	2011
F-35A CTOL (Optimized Design) First Flight	4	2009	4	2009
F-35C Carrier Variant (CV) First Flight	2	2010	2	2010